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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,049	12/09/2003	Masatoshi Nagayama	43888-286	3002

7590 11/15/2006  
MCDERMOTT, WILL & EMERY  
600 13th Street, N.W.  
Washington, DC 20005-3096

EXAMINER
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MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/730,049

Applicant(s)

NAGAYAMA ET AL.

Examiner

Angela J. Martin

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is responsive to the Amendment filed on October 17, 2006. The Applicant has amended claims 1 and 3; and canceled claim 4. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive (claim 3 was addressed in the first Office Action of 8/11/05, but was not addressed in the subsequent Office Actions) and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., JP 2002-319398 (machine translation).

Rejection of claims 1-3 drawn to a non-aqueous electrolyte rechargeable battery.

Watanabe et al., teach to a non-aqueous electrolyte rechargeable battery (title) comprising a positive electrode containing a mixture of a first positive electrode active material and a second positive electrode active material, the first material comprises lithium oxide containing manganese and further contains aluminum and/or magnesium; and the second material comprising  $\text{Li}_x\text{Co}_{1-y-z}\text{Mg}_y\text{Al}_z\text{O}_2$  with ranges for x, y, and z as

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claimed in claim 1 (abstract), wherein the content of the second active material is 5 to 40% (0022). It teaches the first positive electrode active material having the formula of claim 2 (abstract). It teaches a battery comprising a positive electrode containing a mixture of first and second positive electrode active material, wherein the first material comprises lithium oxide containing manganese and further containing aluminum (0051) and the second material comprises the formula in claim 3 (abstract).

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the abstract of Watanabe et al., teach that the range of Al is  $0.02 \leq w \leq 0.15$ ; "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties." *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al., JP 2002-319398 (machine translation), in view of Kaneda et al., U.S. Pat. No. 6,638,662 B2.

Watanabe et al., teach a non-aqueous electrolyte rechargeable battery.

Kaneda et al., teach an end-of-charge voltage in a normal operation state is set to 4.3 V.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Kaneda et al., into the teachings of Watanabe et al., because Kaneda et al., teach an end-of-charge voltage of 4.2 V and

4.3 V, which is determined by the tester of the battery charge/discharge cycle (col. 15, lines 3-30).

### ***Response to Arguments***

4. Examiner would like to clear up item 3 of the Non-Final Rejection of 1/26/06, which was referring to a 102 (b) rejection. As can be seen by looking at the title of item 2 and the obvious statement of item 3 of 1/26/06, Examiner meant to type a 103(b) statement at the beginning of item 3.

5. Applicant's arguments filed 4/26/06 have been fully considered but they are not persuasive.

Applicant argues "the molar amount of Al being lower than 0.02, not equal to or greater than 0.02 as disclosed in the JP'398." However, "a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them **to have the same properties**. *Titanium Metal Corp. of America v. Banner* 227 USPQ 773 (Fed. Cir. 1985); *In re Woodruff* 16 USPQ 2d 1934 (Fed. Cir. 1990); *In re Aller* 105 USPQ 233 (CCPA 1955).

In addition, Applicant argues "Comparative Examples 1, 3, 6, 12 and 13 each contain A1 with a molar ratio outside the range cited in the present invention. As is shown in Table 2, the Examples 1-4 show marked improvement in capacity maintenance ratio and capacity recovery ratio over the comparative examples cited above." However, in Comparative Examples 1 and 3, there is only a first positive electrode active material present (missing a second positive electrode active material);

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therefore, Comparative Examples 1 and 3 are not commensurate in scope with Examples 1-4.

In Comparative Examples 6, 12, and 13, the second positive electrode active material does not include Mg as a component, therefore, the second positive electrode active material has different materials from Examples 1-4, and therefore, Comparative Examples 6, 12, and 13 are not commensurate in scope with Examples 1-4.

### ***Conclusion***

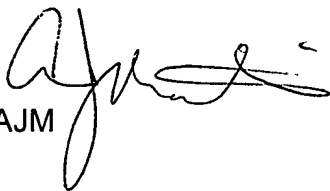
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
AJM

PATRICK JOSEPH RYAN  
SUPERVISORY EXAMINER